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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,845	02/27/2001	Christoph Herrmann	PHD 99,088	5206

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BRIARCLIFF MANOR, NY 10510

EXAMINER

AHN, SAM K

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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09/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

09/763,845

Applicant(s)

HERRMANN ET AL.

Examiner

Sam K. Ahn

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 0505 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see p.7-8, filed 05/09/07, with respect to the rejection(s) of claim(s) 14-37 under 103(a) have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14-19 and 21-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Take et al. US 5,883,887 (Take) in view of Kanterakis US 6,389,056 B1 (cited previously).

Regarding claim 14, Take teaches a wireless network (see wireless communication in Fig.3) comprising a base station (one of 2a-2c in Fig.3); a terminal (one of 1a-1e in Fig.3) operable to be assigned to a radio cell of the base station for exchanging user data and control data (wherein one skilled in the art would recognize that connection between base stations and mobile stations as illustrated in figure 13 requires user data and control data), the terminal further operable to transmit a wish by the terminal to use one of the plurality of

contention channels (transmit RACH by the terminal that is received by the base station, S0801 in Fig.17); wherein the base station upon receiving the with for the service is operable to generate and detect a pulse of the received signal of the wish (see RACH in Fig.33 received by the base station and further wherein one skilled in the art would recognize that any signaling between the base station and the terminal is provided in a form of a pulse, since the signaling is in digital form); and wherein the base station, upon generating and detecting the pulse, as explained above, is further operable to broadcast a provision message over at least one contention channel to the terminal, the provision message indicating at least one of the contention channels available to the terminal (S0803 in Fig.17).

Although Take teaches the terminal requesting for service by transmitting a signal, does not explicitly teach transmitting a first signaling sequence, and further, although Take teaches the base station receiving the signal does not explicitly teach correlating the received signal to produce the pulse.

Kanterakis also teaches a terminal communicating with a base station (see Fig.1) wherein the terminal (further shown in Fig.3) transmits signals by multiplying (326) with a spreading sequence generator (327), hence signals transmitted by the terminal are pseudo random square wave signals (note col.4, lines 18-19).

Kanterakis further teaches the base station (see Fig.4) receiving the signals transmitted by the terminal and correlating (315, wherein one skilled in the art would recognize that matched filters perform the function of correlating) in order to produce pulses (output of 315). Hence, both Take and Kanterakis teach a

CDMA system wherein Take implements RACH signaling, note US 6,549,564 supporting that RACH are implemented in CDMA systems, see Fig.3, and note c.4, l.47-54) comprising a base station and a terminal communicating with each other, wherein Kanterakis further teaches the detailed steps of spreading and despread the signals, which are spread spectrum signals, note col.3, lines 64-67. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the teaching of Kanterakis in the system of Take by transmitting and receiving signals in a spread spectrum manner, by including the spreading sequence generator in the transmitter of the mobile station and correlating in order to despread the signals for the purpose of combating against intruders from receiving the transmitted signals, which is well-known to one skilled in the art. Hence, the transmitted signals of Take would have the first signaling sequence by the output of the terminal, and the received signals by the base station would incorporate the correlator for despread.

Regarding claim 15, Kanterakis further teaches a terminal provided for transmitting a signaling sequence during a certain time slot (note col.11, lines 40-57) of a transmitting-end reference frame, and after receiving a provision message (ACK signal) from the base station, for transmitting a terminal identification data packets over at least one contention channel. (note col.9, lines 31-45).

Regarding claim 16, Kanterakis further teaches correlating the received signal (by a matched filter, 315) to generate the pulse, and further detecting the peak evolved, (note col.6, lines 1-19) wherein the base station detects the power level of the signal to determine signaling sequence comprising pilot signals.

Regarding claim 17, Kanterakis further teaches a terminal provided for transmitting a Gold, Kasami or Golay sequence (col.8, lines 24-40) as a signaling sequence during a specific time slot of a transmitting-end reference frame. (note col.11, lines 40-57).

Regarding claim 18, Take further teaches wherein the terminal is further operable to transmit a second signaling sequence to the base station in response to a failure to receive an acknowledgement of the reception of the first signaling sequence by the base station within a predefined period of time after transmission of the first signaling sequence to the base station (see failure 0307 in Fig.8 and transmitting second signal 0310 within the time between transmitting 0305 and 0309)

Regarding claim 19, the claim is rejected as applied to claim 18 with similar scope.

Regarding claim 21, Kanterakis further teaches a terminal provided for transmitting a signaling sequence during one of various determined time slots

(note col.11, lines 40-57) of a transmitting-end reference frame, and after receiving a provision message (ACK signal) from the base station, for transmitting a terminal identification data packets over at least one contention channel. (note col.9, lines 31-45) Furthermore, it is inherent that the terminal transmits the terminal identification only when the provision message indicates the respective time slot. As previously explained, the provision message includes the time slot information and therefore, transmitting the terminal identification would only occur after the reception of the provision message.

Regarding claim 22, Kanterakis also teaches transmission of a signaling sequence transmitted by plurality of terminals communicating with a base station. (note col.1, lines 30-43) Furthermore, it is inherent that the signaling sequence transmitted by the terminal is part of a multiplicity of signaling sequence to be used in a radio cell, since there are more than one terminals communicating with the base station requesting for a contention channel each using a different signaling sequence.

Regarding claim 23, Kanterakis further teaches a terminal selecting a signaling sequence to request for one or a plurality of contention channel (see Fig.4, and note col.6, lines 25-35) and further, the data rates are different from the base station. (note col.9, lines 54-61 wherein the terminal informs the base station of

the data rate, which may be different from the rate of base station. (note col.9, lines 54-61).

Regarding claim 24, the claim is rejected as applied to claim 14 with similar scope.

Regarding claim 25, the claim is rejected as applied to claim 16 with similar scope.

Regarding claim 26, the claim is rejected as applied to claim 14 with similar scope.

Regarding claim 27, the claim is rejected as applied to claim 15 with similar scope.

Regarding claim 28, the claim is rejected as applied to claim 17 with similar scope.

Regarding claim 29, the claim is rejected as applied to claim 18 with similar scope.

Regarding claim 30, the claim is rejected as applied to claim 18 with similar scope.

Regarding claim 31, the claim is rejected as applied to claim 20 with similar scope.

Regarding claim 32, the claim is rejected as applied to claim 21 with similar scope.

Regarding claim 33, the claim is rejected as applied to claim 14 with similar scope.

Regarding claim 34, Take further teaches wherein the terminal, upon receiving the provision message is further operable to transmit a registration request to the base station, and wherein the base station, upon receiving the registration request, is further operable to acknowledge the reception of the registration request to the terminal and assign the terminal to the radio cell (upon receiving RACH1 – RACH3 assigns the terminal to be registered to the base station, see table in Fig.13 and note c.12, l.19-25).

Regarding claim 35, the claim is rejected as applied to claim 34 with similar scope.

Regarding claim 36, the claim is rejected as applied to claim 34 with similar scope.

Regarding claim 37, the claim is rejected as applied to claim 34 with similar scope.

3. Claim 20 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Take et al. US 5,883,887 (Take) in view of Kanterakis US 6,389,056 B1 (cited previously) and Crichton et al. US 6,330,459 B1 (Crichton).

Application/Control Number: 09/763,845

Page 9

Art Unit: 2611

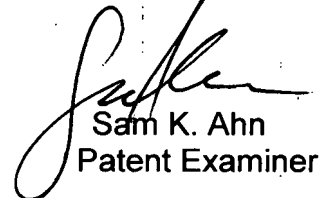
Regarding claim 20, the claim is rejected as applied to claim 18 with similar scope. However, Take in view of Kanterakis do not explicitly teach increasing power when initial transmission fails.

Crichton teaches increasing power (note col.5, line 47) when initial transmission fails. Crichton suggests that this ensures that the signaling is properly received by the base station (note c.5, l.35-54). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the teaching of Crichton in the system of Take in view of Kanterakis of power up the power when initial transmission fails for the purpose of ensuring that the signaling is properly received by the base station (note c.5, l.35-54).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sam K. Ahn
Patent Examiner

8/30/07